# CT

RAW SEQUENCE LISTING

DATE: 04/04/2001 TIME: 11:38:37

PATENT APPLICATION: US/09/720,840

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Output Set: N:\CRF3\04042001\I720840.raw

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3 <110> APPLICANT: Biotica Technology Limited
              Leadlay, Peter F
              Staunton, James
      5
              Cortes, Jesus
      ń
             McArthur, Hamish AI
      9 < 120 > TITLE OF INVENTION: Polyketides and their synthesis
     11 <130> FILE REFERENCE: IS/CP5787577
C--> 13 <140> CURRENT APPLICATION NUMBER: US/09/720,840
C--> 14 <141> CURRENT FILING DATE: 2000-12-29
     16 <150> PRIOR APPLICATION NUMBER: GB 9814006.4
     17 <151> PRIOR FILING DATE: 1998-06-29
     19 -: 160> NUMBER OF SEQ ID NOS: 55
     21 <170> SOFTWARE: PatentIn Ver. 2.1
     23 <210> SEQ ID NO: 1
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     25 · 212> TYPE: PRT
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     62 Leu Ile Val Ser Gly Ala Met Asp Ser Ser Leu Cys Pro Tyr Gly Met
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     65 Ala Ala Gln Val Arg Ser Gly Arg Leu Ser Gly Ser Asp Asp Pro Thr
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71 Glu Gly Gly Ala Ile Leu Ala Val Glu Asp Ala Glu Arg Val Ala Glu

ENTERED

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DATE: 04/04/2001 TIME: 11:38:37

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Output Set: N:\CRF3\04042001\I720840.raw

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102 3		1				390					395	-				
106 ↔	210	)> S	EO T	D NO	: 2											
107 -:																
108 -:																
109 -:						ento	mvce	e na	waat							
100																
111						СРСО	mycc	s pe	ucet	Tus						
111 ·:	400	)> S	EQUE	NCE:	2		-	•			· Sor	. Gln	Lau	Uic	· Δla	Sar
112 M	400 et	)> S	EQUE	NCE:	2 Ala	Ala	-	•		Ser		Gln	Leu	. His		
112 M 113	400 et 1	)> SI Thr	EQUE Gly	NCE: Thr	2 Ala 5	Ala	Arg	Thr	Ala	Ser 10					15	
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112 M 113 115 P 116	400 et 1 ro	)> Si Thr Ala	EQUE Gly Gly	NCE: Thr Arg 20	2 Ala 5 Arg	Ala Gly	Arg Leu	Thr Arg	Ala Gly 25	Ser 10 Arg	Ala	. Val	Val	Thr	15 Gly	Leu
112 M 113 115 P 116 118 G	400 et 1 ro	)> Si Thr Ala	EQUE Gly Gly Val	NCE: Thr Arg 20 Ala	2 Ala 5 Arg	Ala Gly	Arg Leu	Thr Arg	Ala Gly 25 Gly	Ser 10 Arg	Ala	. Val	Val Tyr	Thr 30	15 Gly	Leu
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112 M 113 P 116 118 G 119 121 V 122 124 A 125	400 et l ro ly al	)> Si Thr Ala Ile Leu 50 Gly	EQUE Gly Gly Val 35 Asn	NCE: Thr Arg 20 Ala Gly Leu	2 Ala 5 Arg Pro Arg Gly	Ala Gly Asn Asn Arg	Arg Leu Gly Gly 55 Leu	Thr Arg Leu 40 Ile	Gly 25 Gly Gly	Ser 10 Arg Val Pro	Ala Gly Leu Val	Val Ala Arg 60 Ser	Val Tyr 45 Arg	Thr 30 Trp Phe	15 Gly Asp Thr	Leu Ala Gly Pro 80
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112 M 113 P 116 118 G 119 121 V 122 124 A 125 127 G 128 130 G 131	400 et ly al sp 65 lu	Thr  Ala  Ile  Leu  50  Gly  Asp	EQUE Gly Gly Val 35 Asn Arg His	NCE: Thr Arg 20 Ala Gly Leu Leu 100 Ser	2 Ala 5 Arg Pro Arg Gly Pro 85 Ala	Ala Gly Asn Asn Arg 70 Lys	Arg Leu Gly 55 Leu Arg Ala	Thr Arg Leu 40 Ile Ala Leu Glu	Gly Gly Gly Gly Leu Trp 105	Ser 10 Arg Val Pro Glu Ala 90 Ala	Ala Gly Leu Val 75 Gln	Val Ala Arg 60 Ser Thr	Val Tyr 45 Arg Asp Asp	Thr 30 Trp Phe Phe Pro Ser 110 Ser	15 Gly Asp Thr Val Met 95 Gly	Leu Ala Gly Pro 80 Thr Cys
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112 M 113 P 116 118 G 119 121 V 122 124 A 125 127 G 128 130 G 131 133 S 134 136 G 137	400 et lro ly al sp 65 lu ln	D> SI Thr Ala Ile Leu 50 Gly Asp Tyr Pro Gly 130	Gly Gly Val 35 Asn Arg His Ala Ser 115 Phe	NCE: Thr Arg 20 Ala Gly Leu Leu 100 Ser Ala	Arg Arg Gly Pro 85 Ala Pro	Ala Gly Asn Asn To Lys Ala Leu Gly	Arg Leu Gly 55 Leu Arg Ala Glu Gln 135	Thr Arg Leu 40 Ile Ala Leu Glu Ala 120 Arg	Gly Gly Gly Leu Trp 105 Gly	Ser 10 Arg Val Pro Glu Ala 90 Ala Val Leu	Ala Gly Leu Val 75 Gln Leu Ile	Ala Arg 60 Ser Thr Arg Thr Asn 140	Val Tyr 45 Arg Asp Glu Ala 125 Leu	Thr 30 Trp Phe Phe Pro Ser 110 Ser Trp	15 Gly Asp Thr Val Met 95 Gly Ala	Leu Ala Gly Pro 80 Thr Cys Ser Lys
112 M 113 P 116 118 G 119 121 V 122 124 A 125 127 G 128 130 G 131 S 134 136 G 137 139 G	400 et 1 ro ly al sp 65 lu ln er ly	D> SI Thr Ala Ile Leu 50 Gly Asp Tyr Pro Gly 130	Gly Gly Val 35 Asn Arg His Ala Ser 115 Phe	NCE: Thr Arg 20 Ala Gly Leu Leu 100 Ser Ala	Arg Arg Gly Pro 85 Ala Pro	Ala Gly Asn Asn To Lys Ala Leu Gly	Arg Leu Gly 55 Leu Arg Ala Glu Gln 135 Ala	Thr Arg Leu 40 Ile Ala Leu Glu Ala 120 Arg	Gly Gly Gly Leu Trp 105 Gly	Ser 10 Arg Val Pro Glu Ala 90 Ala Val Leu	Ala Gly Leu Val 75 Gln Leu Ile	Arg 60 Ser Thr Arg Thr Asn 140 Ala	Val Tyr 45 Arg Asp Glu Ala 125 Leu	Thr 30 Trp Phe Phe Pro Ser 110 Ser Trp	15 Gly Asp Thr Val Met 95 Gly Ala	Leu Ala Gly Pro 80 Thr Cys Ser Lys
112 M 113 P 116 118 G 119 121 V 122 124 A 125 127 G 128 130 G 131 33 S 134 136 G 137 139 G 140 1	400 et l ro ly al sp65 lu ln er ly 45	D> SI Thr Ala Ile Leu 50 Gly Asp Tyr Pro Gly 130 Pro	Gly Gly Val 35 Asn Arg His Ala Ser 115 Phe	NCE: Thr Arg 20 Ala Gly Leu Leu 100 Ser Ala His	Arg Pro Arg Gly Pro 85 Ala Pro Phe	Ala Gly Asn Asn Arg 70 Lys Ala Leu Gly Ser 150	Arg Leu Gly 55 Leu Arg Ala Glu Gln 135 Ala	Thr Arg Leu 40 Ile Ala Leu Glu Ala 120 Arg	Gly Gly Gly Leu Trp 105 Gly Glu Met	Ser 10 Arg Val Pro Glu Ala 90 Ala Val Leu Ser	Ala Gly Leu Val 75 Gln Leu Ile Gln	Arg 60 Ser Thr Arg Thr Asn 140 Ala	Val Tyr 45 Arg Asp Glu Ala 125 Leu	Thr 30 Trp Phe Phe Pro Ser 110 Ser Trp	15 Gly Asp Thr Val Met 95 Gly Ala Ser	Leu Ala Gly Pro 80 Thr Cys Ser Lys Ala 160
112 M 113 P 116 C 118 G 119 C 121 V 122 C 124 A 125 C 127 G 128 C 131 C 133 S 134 C 136 G 137 C 139 G 140 L 142 V	400 et lro ly al sp65 lu ln er ly 45	D> SI Thr Ala Ile Leu 50 Gly Asp Tyr Pro Gly 130 Pro	Gly Gly Val 35 Asn Arg His Ala Ser 115 Phe	NCE: Thr Arg 20 Ala Gly Leu Leu 100 Ser Ala His	Alaa Pro Phe Val	Ala Gly Asn Asn Arg 70 Lys Ala Leu Gly Ser 150 Ile	Arg Leu Gly 55 Leu Arg Ala Glu Gln 135 Ala	Thr Arg Leu 40 Ile Ala Leu Glu Ala 120 Arg	Gly Gly Gly Leu Trp 105 Gly Glu Met	Ser 10 Arg Val Pro Glu Ala 90 Ala Val Leu Ser His	Ala Gly Leu Val 75 Gln Leu Ile Gln Phe 155 Asp	Arg 60 Ser Thr Arg Thr Asn 140 Ala	Val Tyr 45 Arg Asp Glu Ala 125 Leu	Thr 30 Trp Phe Phe Pro Ser 110 Ser Trp	15 Gly Asp Thr Val Met 95 Gly Ala Ser Tyr	Leu Ala Gly Pro 80 Thr Cys Ser Lys Ala 160 Val
112 M 113 P 116 118 G 119 121 V 122 124 A 125 127 G 128 130 G 131 33 S 134 136 G 137 139 G 140 1	400 et 1 ro 1y al sp 65 lu ln er ly 45 al	D> SI Thr Ala Ile Leu 50 Gly Asp Tyr Pro Gly 130 Pro	EQUEEGLY Gly Val 355 Asn Arg His Ala Serr 115 Phe Ala	NCE: Thr Arg 20 Ala Gly Leu Leu 100 Ser Ala His	Alaa Pro Phe Val	Ala Gly Asn Asn Arg 70 Lys Ala Leu Gly Ser 150 Ile	Arg Leu Gly 55 Leu Arg Ala Glu Gln 135 Ala Ala	Thr Arg Leu 40 Ile Ala Leu Glu Ala 120 Arg Tyr	Gly Gly Gly Leu Trp 105 Gly Glu Met	Ser 10 Arg Val Pro Glu Ala 90 Ala Val Leu Ser His 170	Ala Gly Leu Val 75 Gln Leu Ile Gln Phe 155 Asp	Arg 60 Ser Thr Arg Thr Asn 140 Ala	Val Tyr 45 Arg Asp Glu Ala 125 Leu Trp	Thr 30 Trp Phe Pro Ser Trp Phe Gly	15 Gly Asp Thr Val Met 95 Gly Ala Ser Tyr Pro 175	Leu Ala Gly Pro 80 Thr Cys Ser Lys Ala 160 Val

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157	Asp	Arg	Arg	Ala		Gly	His	Val	Pro		Glu	Gly	Gly	Ala		Leu
158					245					250					255	
160	Thr	Val	Glu	Asp	Ala	Glu	Arg	Ala		Glu	Arg	Gly	Ala		Val	Tyr
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	GLY		Pro	ser	Ala	Leu		Arg	Ala	Val	GIu		A⊥a	Leu	Ala	Asp
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	ALa	vaı.	Pro	Glu		Asp	АТа	Ата	GIU		(J L U	Ala	Leu	Ald	335	V d.L
1/3	Dl	.71	Dro	Arg	325	W-1	Dro	Val	The	330	Dro	Lvc	Thr	LOU		Cly
176	PHE	этү	PIO	340	Arg	vai	PIO	val	345	val	PIO	LYS	1111	350	1 1111	Gry
	Arci	LAU	Tur	Ser	C137	Δla	G1v	Pro		Agn	Val	Δla	Thr		Leu	T (211
179	AT G	Leu	355	261	этү	Ala	этү	360	п÷и	изр	vai	A.J. G.	365	Alu	יייינו	ыча
	Ala	Len		Asp	Glu	Val	Va 1		Ala	Thr	Ala	His		Asp	Pro	Asp
182		370	**** 9		314	·uı	375	110	1114			380				
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196	$\times 211$	l'> LE	ENGTE	H: 40	7											
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	GLy		He	Asp	Asp	Phe		Ala	Pro	Asp	Hls		Pro	GIY	Arq	Leu
211	Ŧ.,	50	a1.	on to		D	55	m l			<b>3</b> 1 -	(-()	ml.	3 l =	a 1	7
213		Pro	GIN	Thr	Asp		ser	inr	Arg	Leu		Leu	Inr	Ата	Ата	
21.4	65					70	_	. 1 -		D	75	C	T	m l	_	80
	Tree	A 1 ~	T ~ · ·	C1 ~	A com	Λ										
$\frac{216}{217}$	Trp	Ala	Leu	Gln		Ala	Lys	Ата	Asp		GIU	ser	Leu	inr		туг
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Input Set : A:\5787577.app

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	Ser 145	тте	Arg	HIS	GT.Ä	мес 150	Arg	этХ	PIO	ser	155	Ala	Leu	vaı	АТа	160
	Gln	Ala	Glv	Glv	Leu		Ala	Leu	Glv	His		Ara	Arg	Thr	Ile	
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291	4		_	20		-			25		-	•	-	30	-	
293	Ser	Arg	Leu	Ser	Arg	Phe	Asp	Pro	Thr	Gly	Tyr	Pro	Ala	Glu	Leu	Ala

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/720,840

DATE: 04/04/2001 TIME: 11:38:37

Input Set : A:\5787577.app

Output Set: N:\CRF3\04042001\I720840.raw

294			35					40					45			
296	Gly	Gln	Val	Leu	Asp	Phe	Asp	Ala	Thr	Glu	His	Leu	Pro	Lys	Arg	Leu
297		50			-		55					60				
299	Leu	Pro	Gln	Thr	Asp	Val	Ser	Thr	Arg	Phe	Ala	Leu	Ala	Ala	Ala	Ala
300	65				-	70			,		75					80
302	Trp	Ala	Leu	Ala	Asp	Ala	Glu	Val	Asp	Pro	Ala	Glu	Leu	Pro	Glu	Tyr
303	1				85				-	90					95	-
305	Gly	Thr	Gly	Val	Ile	Thr	Ser	Asn	Ala	Thr	Gly	Gly	Phe	Glu	Phe	Thr
306	.1		1	100					105		_	-		110		
	His	Arq	Glu	Phe	Arq	Lvs	Leu	Trp	Ala	Gln	Glv	Pro	Glu	Phe	Val	Ser
309			115		_	4		120			-		125			
	Val	Tvr	Glu	Ser	Phe	Ala	Trp	Phe	Tvr	Ala	Val	Asn	Thr	Gly	Gln	Ile
312		130					135		1			140		,		
	Ser		Ara	His	Glv	Leu		Glv	Pro	Glv	Ser		Leu	Val	Ala	Glu
315	145					150	5	1		1	155					160
		Ala	Glv	Glv	Leu		Ala	Va l	Glv	His		Glv	Ala	Val	Ara	
318	3.211		J = 1	0-1	165				0 = 1	170	1	1			175	
	Glv	Thr	Pro	Met		Va1	Thr	Glv	Glv		Asp	Ser	Ser	Phe	Asp	Pro
321	311			180	, 41	, 41		3 ± 1	185			0 5 1		190		0
	Erro	Glv	Trn		Ser	His	Va l	Ser		Gly	Ara	Va 1	Ser	Arg	Ala	Thr
324	r - 1.	$O \perp I$	195	101	OCI	1115	·ui	200	001	311	**** 9	, , , ,	205	,		1.11
	Asn	Pro		Ara	Ala	Tvr	Len		Ph⊖	Asp	Va1	Ala		Asn	Glv	Tyr
327	1101	210	O 1I	1119		- <i>1</i> -	215	110	1 11.5	пор	, 41	220			321	- / -
	Val		Glv	Glu	Glv	Glv		Πle	Leu	Leu	Leu		Asn	Ala	Glu	Ser
330	225		01.1	3.20	O I I	230	1120		20.7	200	235	3.2.4	е		324	240
		Lvs	Ala	Ara	Glv		Thr	Glv	Tvr	Glv		He	Ala	G17	Tvr	
3 3 3		210		9	245			1	- 1 -	250				,	255	
	Ala	Thr	Phe	Asp		Ala	Pro	Glv	Ser		Ara	Pro	Pro	Ala		Ara
336				260				1	265		,			270		
	Ara	Ala	Tle		Leu	Ala	Leu	Ala		Ala	Glu	Leu	Ara	Pro	Glu	Gln
339			275					280	10				285			
	Val	Asp	Val	Val	Phe	Ala	Asp	Ala	Ala	Gly	Val	Ala	Glu	Leu	Asp	Ala
342		290					295			•		300			•	
344	Ile	Glu	Ala	Ala	Ala	Ile	Arq	Glu	Leu	Phe	Gly	Pro	Ser	Gly	Val	Pro
345						310	,				315					320
		Thr	Ala	Pro	Lys	Thr	Met	Thr	Gly	Arg	Leu	Tyr	Ser	Gly	Gly	Gly
348					325				.4	330		_		-	335	1
350	Pro	Leu	Asp	Leu	Val	Ala	Ala	Leu	Leu	Ala	Ile	Arq	Asp	Gly	Val	He
351				340					345				_	350		
353	Pro	Pro	Thr	Val	His	Thr	Ala	Glu	Pro	Val	Pro	Glu	His	Gln	Leu	Asp
3.5.4			355					360					365			•
356	Leu	Val		Glv	Asp	Pro	Ara	His	Gln	Gln	Leu	Gly		Ala	Leu	Val
357		370		1			375					380				
	Leu	Ala	Ara	Glv	Lvs	Trp		Phe	Asn	Ser	Ala	Val	Val	Val	Arq	Gly
360			,	. 1	1 -	390	. 1				395					4(10
	Val	Thr	Glv								-					
				NO:	5											
				1: 4]												
	<212															
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VERIFICATION SUMMARY

PATENT APPLICATION: US/09/720,840

DATE: 04/04/2001 TIME: 11:38:38

Input Set : A:\5787577.app

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L:13 M:270 C: Current Application Number differs, Replaced Current Application Number

L:14 M:271 C: Current Filing Date differs, Replaced Current Filing Date